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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,516	03/15/2004	Brian D. Goers	53949US013	9467
32692	7590	07/16/2008		
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427				
EXAMINER				
RACHUBA, MAURINA T				
ART UNIT		PAPER NUMBER		
3723				
NOTIFICATION DATE		DELIVERY MODE		
07/16/2008		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com  
LegalDocketing@mmm.com

### Office Action Summary

**Application No.**

10/800,516

**Applicant(s)**

GOERS, BRIAN D.

**Examiner**

Maurina Rachuba

**Art Unit**

3723

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 5/13/0 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 13-22 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12, 23 and 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Paper No(s)/Mail Date. \_\_\_\_\_
- 6) ☐ Other: \_\_\_\_\_
- 7) ☐ Notices of Informal Patent Application
- 8) ☐ Paper No(s)/Mail Date 5/13/08

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 13-22 and 24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 18 January 2005.

***Claim Rejections - 35 USC § 112***

2. Applicant's amendment has overcome the rejection under 35 USC 112.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 2, 6-8, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurusamy et al, 6,361,423 in view of Manfredi et al, 5,785,585. '423 discloses the claimed invention, except for the carrier substantially contacting the entire contacting surface of the substrate, the substrate being adhered to the carrier or the substrate being permanently affixed to the carrier. Note that from figures 7A and 9, that the carrier of '423 would appear to contact most of the surface of the substrate, but there is no evidence in '423 that the carrier contacts substantially the entire surface of the substrate. '585, column 5, lines 33-43 and figure 2C teaches providing a plastic (column 5, lines 9-10) carrier that substantially contacts the entire contacting surface of the substrate, the carrier affixed to the substrate by an adhesive. It would have been obvious to one of ordinary skill in the art to have provided '289 with a carrier that

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substantially contacts the entire contacting surface of the substrate, as taught by '585, for the predictable result of increasing the contact surface area between the carrier and substrate, ensuring a better connection.

5. Claims 3-5, 9-12, and 23, and 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gurusamy et al, 6,361,423 in view of Manfredi et al, 5,785,585 as applied to claim 1 above, and further in view of Sung, 6,679,243 (previously cited). Regarding claims 3-5 and 9-12, '289 as modified by '423 and '585 does not disclose or teach the matrix material comprising a brazing alloy, which further comprises at least one of chromium, tungsten, cobalt, titanium, zinc, iron, manganese or silicon, ('289 does disclose that the abrasive is diamond) or that the brazing alloy is aluminum, boron, carbon or silicon, with the abrasive is cubic boron nitride or aluminum oxide; or the disk comprising a corrosion resistant powder. '243, column 13, lines 36-39, teaches using a brazing alloy with diamond abrasive, the alloy containing chromium, manganese, or silicon; column 14, lines 44-55, teaches that the alloy further contains titanium (a corrosion resistant material)<sup>1</sup>, cobalt, zinc, or iron. '243 further teaches that dependent on tool use, other abrasives, such as cubic boron nitride. Because both references teach abrasive bonded to supports by a matrix, it would have been obvious to one of ordinary skill in the art to have substituted the materials taught by '243 for those of '289, for the predictable result of strongly bonding the abrasive to the support. It has been held to be within the general skill of a worker in the art to select a known material on the

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<sup>1</sup> "Titanium is a lightweight, high-strength, low-corrosion structural metal", Encyclopaedia Britannica, The 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006 and 2007 Britannica Book of the Year are copyrighted 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, and 2008 respectively, by Encyclopaedia Britannica, Inc.

basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416. Regarding the use of aluminum oxide as an abrasive, in the Office action of 15 April 2005, the examiner took Official notice that the use of aluminum oxide, an old and well known abrasive, would have been obvious to one of ordinary skill. Applicant did not traverse in the response filed 15 July 2005. In accordance with MPEP 2144.03, the use of aluminum oxide is therefore admitted as prior art. Regarding claims 23 and 25-30, '289 as modified by '423 does not disclose the abrasive affixed to the substrate with an electroplated material or electroplated metal. '243, column 24, lines 53-61, teaches that it is known to make conventional conditioner by electroplating abrasive to a substrate. Because both references teach abrasive tools, with the abrasive bonded to a support, it would have been obvious to one of ordinary skill in the art to substitute one binding material for another to achieve the predictable result of bonding the abrasive to the support. It has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

#### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-12, 23 and 25-32 have been considered but are moot in view of the new ground(s) of rejection. Applicant's amendment has overcome the previous rejections. Applicant's arguments concerning the use of magnets to affix the substrate to the carrier are noted, however, please refer to the teachings above. While Gurusamy may cite a further advantage to making the

substrate removable, Manfredi teaches permanently affixing the substrate to the carrier. Omission of an element and its function is obvious if the function of the element is not desired. Please see MPEP 2144.04.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maurina Rachuba whose telephone number is 571 272 4493. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on 571 272 4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. Rachuba/  
Primary Examiner, Art Unit 3723